

REMARKS

Claims 1-4, 8-12, 14-18, 20, 22-25 and 28-32 are now presented for examination. Claims 26 and 27 have been cancelled, without prejudice or disclaimer of the subject matter presented therein. Claims 25 and 28 have been amended. Claims 29-32 have been added to assure Applicants a full measure of protection of the scope to which they deem themselves entitled. Support for the new claims can be found, for example, from page 19, line 19 to page 20, line 8, and in Figs. 3 and 4.¹ Claims 1, 3, 9, 15, 17, 22, 23, 25 and 28-32 are in independent form. Favorable reconsideration is respectfully requested.

Applicants wish to thank the Examiner for the indication that Claims 1-4, 8-12, 14-18, 20 and 22-24 have been allowed.

Claims 25-28 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,863,682 (*Abe et al.*). Without conceding the propriety of this rejection, cancellation of Claims 26 and 27 renders their rejection moot.

During a telephone conversation between the Examiner and the undersigned representative on February 5, 2004, the Examiner indicated that Claims 25 and 28 would be allowed if they were to be amended to incorporate subject matter along the lines of that included in, for example, the “wherein” clause of Claims 1, 3, 15 and 22. Applicants have amended Claims 25 and 28 to incorporate features along the lines of the “wherein” clause of Claim 1, and therefore those claims are believed to be in condition for allowance,

¹The sections of the specification cited above are referred to merely for purposes of illustration only, and are not intended to limit the scope of Claims 29-32 to only the embodiments described therein.

because neither *Abe et al.* nor the other art of record is seen to teach or suggest those features.

Similarly, newly added Claims 29 and 30 are written to include, inter alia, features along the lines of those in the “wherein” clause of allowed Claim 3, and therefore those claims are believed to be in condition for allowance as well, because neither *Abe et al.* nor the other art of record is seen to teach or suggest those features.

New claims 31 and 32 relate to an apparatus for irradiating a plurality of charged-particle beams to a sample, to form a pattern on the sample. In Figs. 3 and 4, for example, a blanker array (BA) has a plurality of apertures (AP) two-dimensionally arrayed on a same plane located almost perpendicularly to a pass through direction of the plurality of charged-particle beams and a plurality of pairs of electrodes 32 provided on both sides of each aperture. The plurality of pairs of electrodes individually deflect the plurality of charged-particle beams and individually control irradiating of the plurality of charged-particle beams to the sample. This enables a proximity effect correction for each charged-particle beam to be obtained, which results in an exceptional effect based on the proximity effect correction.

In contrast, *Abe et al.* discloses an invention related to a single beam system which forms a pattern formation using one beam. *Abe et al.* does not disclose the apparatus set forth in Claims 31 and 32.

Moreover, Claims 31 and 32 can be distinguished over *Abe et al.*, since *Abe et al.* teaches in Fig. 5, that the blanking deflector is configured by having the beam pass through an aperture and a pair of electrodes provided on both sides of the aperture. This differs from the invention set forth in Claims 31 and 32, where a blanker array (BA) has a

plurality of apertures two-dimensionally arrayed on a same plane located almost perpendicularly to a pass through direction of the plurality of charged-particle beams and a plurality of pairs of electrodes provided on both sides of each aperture.

Furthermore, column 14, lines 34-44 of *Abe et al.* seemingly discloses electron beams discharged from an electron gun 21 that is subjected to an ON-OFF operation of a blanking deflector. However, Applicants' understanding of column 14, lines 34-44 of *Abe et al.* is that a plurality of fine electronic beams are collected and one beam is formed. That is, *Abe et al.* relates to an apparatus of a single beam system which forms a pattern formation using one beam.


Accordingly, *Abe et al.* is not seen to teach or suggest the irradiation of a plurality of beams to the sample and individually controlling the irradiation of the plurality of beams, so that a proximity effect correction for each of the charged-particle beams is obtained, which results in an exceptional effect based on the proximity effect correction.

For these reasons, Claims 31 and 32 are believed to be patentable over *Abe et al.* as well.

Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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